REMARKS

The allowability of the subject matter of claims 15 and 18, and the allowance of claims 16, 17 and 19 are noted, with thanks. Claim 15 has been rewritten in independent form to include the limitations of former claim 12 from which it depended. It is now believed that claims 15-19 are all in condition for allowance.

Claim 12 has been amended to include the limitations of former claims 13 and 14, and claims 13 and 14 have been canceled. No new matter has been entered.

Pursuant to 37 CFR 1.121 a marked copy of the amended claims showing the changes made therein accompanies this Amendment.

Turning now to the rejection of claims 12-14 as anticipated by Ooi et al. (U.S. Patent No. 5,754,260), claim 12, as amended, requires that the light scattering mechanism comprises "a flattened film formed to cover the uneven portion formed at the surface of the transparent insulation substrate." Ooi et al. does not teach a flattened film. Rather, element 835, which Examiner calls "a flattened film" is actually an ITO transparent electrode. With reference to Figure 26 of Ooi et al., it can plainly be seen that layer 835 is not at all **flattened**, but rather has an uneven face that conforms substantially to the liquid crystal side of front electrode substrate 831. In contrast, as shown in Applicants' Figure 7, the flattened film 25 (comprising an acryl-polyamide, or similar material) has a **flattened** face at the liquid crystal side surface. Since Ooi et al. does not teach each and every element of claim 12, as amended, it cannot be said that Ooi et al. anticipates claim 12.

Having dealt with all the objections raised by the Examiner, the Application is believed to be in order for allowance.

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

A credit card payment Form PTO-2038 authorizing a charge of $84.00 in payment of the added independent claims, accompanies this Amendment. In the event there are any fee deficiencies, or additional fees are payable, please charge (or credit any overpayment to) Deposit Account No. 08-1391 as necessary.

Respectfully submitted,

Norman P. Soloway
Attorney for Applicants
Reg. No. 24,315

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on May 7, 2003, at Tucson, Arizona.

By:

NPS/KMD:nm

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

MARKED CLAIMS SHOWING CHANGES MADE:

12. (Amended) A reflection-type color liquid crystal display apparatus comprising:

a liquid crystal driving element formation substrate on which a liquid crystal driving element is formed;

an opposite substrate which is opposite to said liquid crystal driving element formation substrate;

a liquid crystal sandwiched between said liquid crystal driving element formation substrate and said opposite substrate;

a color filter provided on the driving element formation substrate; and

a light scattering mechanism provided at the liquid crystal side surface of the opposite substrate[.]; wherein

said opposite substrate has a transparent insulation substrate, and

said light scattering mechanism comprises an uneven portion formed at the surface of the liquid crystal side of said transparent insulation substrate; and wherein

said light scattering mechanism comprises a flattened film formed to cover the uneven portion formed at the surface of the transparent insulation substrate.

15. (Amended) [The reflection-type color liquid crystal display apparatus according to claim 12,] A reflection-type color liquid crystal display apparatus comprising:

a liquid crystal driving element formation substrate on which a liquid crystal driving element is formed;

an opposite substrate which is opposite to said liquid crystal driving element formation substrate;

a liquid crystal sandwiched between said liquid crystal driving element formation substrate and said opposite substrate;

a color filter provided on the driving element formation substrate; and

a light scattering mechanism provided at the liquid crystal side surface of the opposite substrate; and wherein said opposite substrate has a transparent insulation substrate, and said light scattering mechanism comprises an uneven insulation film formed on the surface of the liquid crystal side of the transparent insulation substrate.

...

Record (Refer to the List of Cited Documents for the Cited Documents)

1. For Claims 1, 9
Cited Documents: 1-4

Remarks:

Respectively, Cited Documents 1-3 describe the establishment of a light scattering mechanism on the liquid crystal side of a substrate opposite a liquid crystal driving element formation substrate for a reflection-type liquid crystal display apparatus.

Also, the formation of a color filter on a liquid crystal driving element formation substrate is conventional technology prior to the filing of the present application (Example: Cited document 4); the suitable application of the conventional technology to, respectively, the inventions that are described in Cited Documents 1-3, is simple for one skilled in the art.

2. For Claims 2, 3, 10, 11
Cited Documents: 1-4
Remarks:

Cited Document 1 describes the formation of an uneven portion on the liquid crystal side surface of an opposite substrate and the formation of a flattened film that covers the uneven region as a light scattering mechanism.

Also, things like sandblasting methods and photo-etching methods as methods that form an uneven portion on a surface of an opposite substrate are conventional prior to the filing of the present application.

3. For Claim 4
Cited Documents: 1-4
Remarks:

Cited Documents 2, 3 describe the formation of an uneven-type insulation film from the outside liquid crystal side surface of a transparent insulation substrate that form an opposite substrate as a light scattering mechanism.

4. For Claim 7
Cited Documents: 1-4
Remarks:

The invention pertaining to Claim 7 is simple for one skilled in the art by the formation (Example: Cited Documents 2, 3) of an uneven insulation film from the outside instead of the establishment of an uneven portion (surface roughening) on a substrate surface as a light scattering mechanism.

List of Cited Documents

1. Publication of Japanese Laid-Open Patent No. H8-338993
2. Publication of Japanese Laid-Open Patent No. H6-324358
3. Publication of Japanese Laid-Open Patent No. H4-243226
4. Publication of Japanese Laid-Open Patent No. H11-84415

Prior Art Reference Search Result Record

•Searched Field	IPC 7th Edition	G02F 1/1335	505
		1/1335	520
		1/1368	

•Prior Art References
Publication of Japanese Laid-Open Patent No. H10-96918
Publication of Japanese Laid-Open Patent No. H7-13146
Publication of Japanese Laid-Open Patent No. H11-6999
Publication of Japanese Laid-Open Patent No. H9-138427
Publication of Japanese Laid-Open Patent No. H7-56152
Publication of Japanese Laid-Open Patent No. H8-334787
Publication of Japanese Laid-Open Patent No. H8-146402

Further, this prior art reference search result record is without the formation of rejection reasons.
...